

Ephemeris for Physical Observations of Jupiter,

Greenwich Noon.	Position-angle of Υ 's Axis. P	L-O	Diff.	B	Annual Parallax. $\Delta-L$	Apparent Diameter. Equat. Defect. Polar. 2a 2b
1896. Jan. 1	16°570	351°618	221	+0°439	-4°751	45"75 0"08 42"88
3	16°494	351°397	229	'440	4°368	45'89 '07 43'01
5	16°416	351°168	236	'442	3°978	46'01 '06 43'13
7	16°335	350°932	243	'444	3°581	46'13 '05 43'23
9	16°251	350°689	248	'446	3°177	46'23 '04 43'33
11	16°164	350°441	254	+0°448	-2°768	46'32 0'03 43'41
13	16°076	350°187	258	'451	2°354	46'40 '02 43'49
15	15°986	349°929	262	'454	1°935	46'46 '01 43'55
17	15°894	349°667	265	'458	1°512	46'51 '00 43'59
19	15°800	349°402	266	'462	1°087	46'55 ... 43'63
21	15°705	349°136	268	+0°466	-0°660	46'57 ... 43'65
23	15°610	348°868	268	'470	-0°231	46'58 ... 43'66
25	15°514	348°600	267	'474	+0°198	46'57 ... 43'65
27	15°418	348°333	266	'479	0°626	46'56 ... 43'63
29	15°322	348°067	263	'484	1°052	46'52 '00 43'60
31	15°226	347°804	261	+0°488	+1°476	46'48 0'01 43'56
Feb. 2	15°131	347°543	258	'493	1°897	46'42 '01 43'51
4	15°036	347°285	254	'498	2°315	46'35 '02 43'44
6	14°943	347°031	248	'503	2°730	46'26 '03 43'36
8	14°852	346°783	242	'508	3°138	46'16 '03 43'27
10	14°762	346°541	236	+0°513	+3°541	46'05 0'04 43'16
12	14°674	346°305	230	'518	3°937	45'93 '05 43'05
14	14°589	346°075	222	'524	4°327	45'80 '06 42'92
16	14°506	345°853	213	'529	4°709	45'65 '08 42'79
18	14°426	345°640	204	'534	5°082	45'50 '09 42'64
20	14°349	345°436	194	+0°538	+5°446	45'33 0'10 42'49
22	14°276	345°242	184	'543	5°800	45'16 '12 42'33
24	14°206	345°058	174	'548	6°144	44'98 '13 42'15
26	14°140	344°884	163	'552	6°478	44'78 '14 41'97

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1895-96. (*Concluded.*) By A. Marth.

Greenwich Noon.	Bright- ness in Star Magn.	Longitude of λ 's Central Meridian.		Corr. for Phase.	Light- time.	$\lambda - 0$	B
		(877° 90) I.	(870° 27) II.				
1896.							
Jan. 1	-2.11	223° 19	225° 18	+0° 10	36° 407	346° 8694	+0° 6954
3	-2.12	179° 27	166° 01	.08	36° 298	347° 0305	.6870
5	-2.12	135° 36	106° 84	.07	36° 199	347° 1916	.6786
7	-2.13	91° 45	47° 67	.06	36° 109	347° 3526	.6701
9	-2.13	47° 55	348° 50	.04	36° 030	347° 5136	.6617
11	-2.14	3° 64	289° 33	+0° 03	35° 961	347° 6745	+0° 6532
13	-2.14	319° 73	230° 16	.02	35° 901	347° 8354	.6448
15	-2.14	275° 82	170° 99	.02	35° 852	347° 9962	.6364
17	-2.15	231° 90	111° 81	.01	35° 813	348° 1570	.6279
19	-2.15	187° 98	52° 63	.01	35° 785	348° 3178	.6195
21	-2.15	144° 06	353° 45	+0° 00	35° 767	348° 4786	+0° 6110
23	-2.15	100° 13	294° 76	...	35° 760	348° 6393	.6026
25	-2.15	56° 20	235° 07	...	35° 764	348° 8000	.5941
27	-2.15	12° 26	175° 87	...	35° 778	348° 9606	.5857
29	-2.15	328° 31	116° 66	.00	35° 803	349° 1211	.5772
31	-2.14	284° 35	57° 44	-0° 01	35° 838	349° 2816	+0° 5687
Feb. 2	-2.14	240° 38	358° 21	.02	35° 884	349° 4420	.5603
4	-2.14	196° 40	298° 97	.02	35° 939	349° 6024	.5518
6	-2.13	152° 42	239° 73	.03	36° 005	349° 7628	.5434
8	-2.13	108° 42	180° 47	.04	36° 082	349° 9232	.5349
10	-2.12	64° 41	121° 20	-0° 05	36° 168	350° 0835	+0° 5264
12	-2.11	20° 39	61° 92	.07	36° 264	350° 2437	.5180
14	-2.11	336° 35	2° 62	.08	36° 370	350° 4039	.5095
16	-2.10	292° 30	303° 32	.10	36° 485	350° 5641	.5011
18	-2.09	248° 24	244° 00	.11	36° 609	350° 7242	.4926
20	-2.08	204° 16	184° 66	-0° 13	36° 743	350° 8843	+0° 4841
22	-2.08	160° 07	125° 31	.15	36° 885	351° 0444	.4757
24	-2.07	115° 96	65° 94	.16	37° 035	351° 2044	.4672
26	-2.06	71° 84	6° 56	.18	37° 194	351° 3643	.4587

Greenwich Noon.	Position-angle of Υ 's Axis. P	L-O	Diff.	B	Annual Parallax. A-L	Apparent Diameter. Equat. 2a	Defect.	Polar. 2b
1896.								
Feb. 28	14°078	344°721	153	+ °556	+ 6°802	44''58	''16	41''79
Mar. 1	14°020	344°568	141	+ 0°560	+ 7°114	44'38	0'17	41'59
3	13°966	344°427	129	°564	7°415	44'16	'18	41'39
5	13°916	344°298	118	°568	7°704	43'94	'20	41'18
7	13°871	344°180	105	°571	7°981	43'72	'21	40'97
9	13°831	344°075	93	°574	8°246	43'49	'22	40'76
11	13°795	343°982	80	+ 0°577	+ 8°498	43'25	0'24	40'54
13	13°764	343°902	68	°580	8°738	43'01	'25	40'31
15	13°738	343°834	55	°582	8°966	42'77	'26	40'08
17	13°717	343°779	42	°584	9°181	42'52	'27	39'85
19	13°701	343°737	28	°586	9°382	42'27	'28	39'62
21	13°689	343°709	16	+ 0°587	+ 9°570	42'02	0'29	39'39
23	13°683	343°693	3	°588	9°745	41'77	'30	39'15
25	13°682	343°690	9	°589	9°908	41'52	'31	38'91
27	13°685	343°699	22	°590	10°058	41'27	'32	38'68
29	13°694	343°721	35	°590	10°195	41'01	'32	38'44
31	13°707	343°756	47	+ 0°590	+ 10°319	40'76	0'33	38'20
Apr. 2	13°725	343°803	60	°590	10°431	40'51	'33	37'96
4	13°748	343°863	72	°589	10°531	40'25	'34	37'73
6	13°776	343°935	83	°588	10°618	40'00	'34	37'49
8	13°808	344°018	96	°586	10°693	39'75	'35	37'26
10	13°845	344°114	108	+ 0°584	+ 10°757	39'50	0'35	37'02
12	13°886	344°222	120	°582	10°808	39'26	'35	36'79
14	13°932	344°342	131	°579	10°847	39'01	'35	36'56
16	13°982	344°473	142	°576	10°875	38'77	'35	36'34
18	14°036	344°615	154	°573	10°892	38'53	'35	36'11
20	14°095	344°769	164	+ 0°570	+ 10°898	38'30	0'35	35'89
22	14°158	344°933	174	°566	10°892	38'06	'34	35'67
24	14°224	345°107	185	°561	10°876	37'83	'34	35'46
26	14°294	345°292	194	°557	10°851	37'61	'34	35'25
28	14°367	345°486	205	°552	10°815	37'38	'33	35'04

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Greenwich Noon.	Bright- ness in Star Magn.	Longitude of \mathcal{M} 's Central Meridian. (877°90) I. (870°27) II.		Corr. for Phase.	Light- time.	A-O	B
1896.	m				m		
Feb. 28	-2.05	27.70	307.16	-0.20	37.361	351.5242	+0.4502
Mar. 1	-2.03	343.55	247.75	-0.22	37.535	351.6841	+0.4417
3	-2.02	299.38	188.32	.24	37.717	351.8439	.4333
5	-2.01	255.19	128.87	.26	37.906	352.0037	.4248
7	-2.00	210.99	69.41	.28	38.102	352.1635	.4163
9	-1.99	166.77	9.93	.30	38.304	352.3232	.4078
11	-1.98	122.54	310.44	-0.32	38.513	352.4829	+0.3993
13	-1.96	78.29	250.93	.33	38.727	352.6425	.3908
15	-1.95	34.02	191.41	.35	38.947	352.8021	.3823
17	-1.94	349.74	131.87	.37	39.172	352.9617	.3738
19	-1.92	305.44	72.31	.38	39.402	353.1212	.3653
21	-1.91	261.13	12.74	-0.40	39.637	353.2807	+0.3568
23	-1.90	216.80	313.15	.41	39.876	353.4401	.3483
25	-1.88	172.45	253.54	.43	40.119	353.5995	.3398
27	-1.87	128.09	193.92	.44	40.365	353.7589	.3313
29	-1.86	83.72	134.29	.45	40.615	353.9182	.3228
31	-1.84	39.33	74.64	-0.46	40.867	354.0775	+0.3143
Apr. 2	-1.83	354.93	14.98	.47	41.123	354.2367	.3058
4	-1.81	310.51	315.31	.48	41.380	354.3959	.2973
6	-1.80	266.08	255.62	.49	41.640	354.5551	.2888
8	-1.79	221.64	195.92	.50	41.902	354.7142	.2803
10	-1.77	177.18	136.20	-0.50	42.165	354.8733	+0.2718
12	-1.76	132.71	76.47	.51	42.430	355.0323	.2633
14	-1.74	88.23	16.73	.51	42.696	355.1913	.2548
16	-1.73	43.74	316.98	.51	42.962	355.3503	.2463
18	-1.72	359.23	257.22	.52	43.228	355.5093	.2378
20	-1.70	314.71	197.45	-0.52	43.495	355.6682	+0.2293
22	-1.69	270.19	137.66	.52	43.761	355.8271	.2208
24	-1.68	225.65	77.86	.51	44.027	355.9859	.2123
26	-1.66	181.10	18.06	.51	44.293	356.1449	.2038
28	-1.65	136.55	318.25	.51	44.557	356.3034	.1953

Greenwich Noon.	Position-angle of Υ 's Axis. P	L-O.	Diff.	B	Annual Parallax. $\Delta-L$.	Apparent Diameter. Equat. 2a	Defect.	Polar. 2b
1896.								
Apr. 30	14°444	345°691	215	+0°547	+10°769	37"16	0"33	34"83
May 2	14°525	345°906	224	°541	10°713	36°95	°32	34°63
4	14°609	346°130	233	°535	10°647	36°74	°32	34°43
6	14°696	346°363	241	°529	10°573	36°53	°31	34°23
8	14°786	346°604	251	°523	10°490	36°32	°30	34°04
10	14°879	346°855	260	+0°516	+10°397	36°12	0°30	33°85
12	14°975	347°115	268	°508	10°296	35°92	°29	33°67
14	15°073	347°383	275	°500	10°187	35°73	°28	33°49
16	15°174	347°658	284	°492	10°069	35°54	°27	33°31
18	15°277	347°942	291	°484	9°944	35°36	°27	33°14
20	15°383	348°233	298	+0°475	+9°812	35°18	0°26	32°97
22	15°491	348°531	306	°466	9°672	35°00	°25	32°81
24	15°601	348°837	313	°457	9°524	34°83	°24	32°65
26	15°713	349°150	319	°448	9°370	34°67	°23	32°49
28	15°827	349°469	325	°438	9°209	34°50	°22	32°34
30	15°942	349°794	332	+0°428	+9°042	34°34	0°21	32°19
June 1	16°059	350°126	338	°417	8°868	34°19	°20	32°05
3	16°178	350°464	344	°407	8°688	34°04	°20	31°91
5	16°298	350°808	350	°396	8°502	33°90	°19	31°77
7	16°420	351°158	355	°385	8°310	33°76	°18	31°64
9	16°542	351°513	360	+0°373	+8°113	33°62	0°17	31°51
11	16°666	351°873	365	°361	7°911	33°49	°16	31°39
13	16°790	352°238	370	°349	7°703	33°36	°15	31°27
15	16°916	352°608	375	°336	7°490	33°24	°14	31°15
17	17°042	352°983	380	°324	7°273	33°12	°13	31°04
19	17°169	353°363	384	+0°311	+7°051	33°00	0°12	30°93
21	17°296	353°747		0°298	6°825	32°89	°12	30°83

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Greenwich Noon.	Bright- ness in Star Magn.	Longitude of λ 's Central Meridian.		Corr. for Phase.	Light- time.	$\Delta - O$	B
1896.	m	I.	II.		m		
Apr. 30	-1.64	91.98	258.42	-0.50	44.821	356.4621	+0.1868
May 2	-1.62	47.41	198.59	.50	45.083	356.6208	.1783
4	-1.61	2.83	138.75	.49	45.343	356.7794	.1698
6	-1.60	318.24	78.90	.49	45.602	356.9380	.1613
8	-1.59	273.64	19.04	.48	45.859	357.0965	.1528
10	-1.57	229.03	319.17	-0.47	46.114	357.2550	+0.1443
12	-1.56	184.42	259.30	.46	46.366	357.4134	.1359
14	-1.55	139.80	199.42	.45	46.616	357.5718	.1274
16	-1.54	95.17	139.54	.44	46.863	357.7302	.1189
18	-1.53	50.54	79.65	.43	47.106	357.8886	.1104
20	-1.52	5.90	19.75	-0.42	47.347	358.0470	+0.1019
22	-1.50	321.26	319.85	.41	47.584	358.2053	.0935
24	-1.49	276.61	259.94	.39	47.818	358.3636	.0850
26	-1.48	231.96	200.03	.38	48.048	358.5218	.0765
28	-1.47	187.30	140.12	.37	48.274	358.6800	.0680
30	-1.46	142.64	80.20	-0.36	48.496	358.8381	+0.0595
June 1	-1.45	97.98	20.27	.34	48.715	358.9962	.0511
3	-1.44	53.31	320.35	.32	48.929	359.1542	.0426
5	-1.43	8.64	260.42	.31	49.138	359.3122	.0341
7	-1.43	323.96	200.48	.30	49.343	359.4702	.0256
9	-1.42	279.28	140.55	-0.29	49.543	359.6282	+0.0171
11	-1.41	234.60	80.61	.27	49.739	359.7861	.0087
13	-1.40	189.92	20.67	.26	49.930	359.9440	+0.0002
15	-1.39	145.24	320.73	.24	50.115	0.1018	-0.0083
17	-1.38	100.55	260.78	.23	50.295	0.2596	.0168
19	-1.38	55.87	200.84	-0.22	50.470	0.4173	-0.0253
21	-1.37	11.18	140.89	.20	50.640	0.5750	.0338

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The following is a list (continued from p. 493) of Greenwich mean times when the zero-meridian in the assumed two systems of longitudes will pass the middle of the illuminated disc :—

		I. (877°·90)	II. (870°·27)			I. (877°·90)	II. (870°·27)
1895.		h m	h m	1896.		h m	h m
Jan.	I	3 44·2	3 42·9	Jan.	18	12 7	Sat. III. Shadow crossing central Meridian.
		13 34·6	13 38·5			18 51·7	12 37·3
	2	9 15·4	9 29·6		19	4 42·1	8 28·5
		19 5·8	19 25·2			14 32·5	18 24·1
	3	4 56·2	5 20·8		20	10 13·3	4 19·7
		14 46·7	15 16·4		20	3 7	14 15·2
	4	10 27·5	11 7·5		21	5 54·1	10 6·4
		20 17·9	21 3·1			15 44·6	20 2·0
	5	6 8·3	6 58·7		22	11 25·4	5 57·6
		15 58·7	16 54·3		21	15·8	15 53·2
	6	11 39·5	12 45·5		23	7 6·2	11 44·3
		21 30·9	22 41·0			16 56·6	21 39·9
	7	7 20·3	8 36·6		24	2 47·0	7 35·5
		17 10·7	18 32·2			7 9	21's centre 84''·0 south of * 9 ^m ·2 B.D. 20°·2106.
	8	3 1·1	4 27·8			12 37·4	17 31·1
		12 51·5	14 23·4			16 30	21's centre 47''·2 south of * 9 ^m ·0 B.D. 20°·2104.
	9	8 32·4	10 14·5		25	8 18·2	3 26·7
		18 22·8	20 10·1			16 7	Sat. III. Sh.
	10	4 13·2	6 5·7			18 8·6	13 22·3
		14 3·6	16 1·3		26	3 59·1	9 13·4
	11	9 44·4	11 52·4			13 49·5	19 9·0
		19 34·8	21 48·0		27	9 30·3	5 4·6
	12	5 25·2	7 43·6			19 20·7	15 0·2
		15 15·6	17 39·2		28	5 11·1	10 51·4
	13	10 56·4	3 34·8			15 1·5	20 47·0
		20 46·8	13 30·4		29	10 42·4	6 42·6
	14	6 37·2	9 21·5			20 32·8	16 38·2
		16 27·6	19 17·1		30	6 23·3	2 33·8
	15	12 8·4	5 12·7			16 13·6	12 29·4
		21 58·8	15 8·3		31	2 4·1	8 20·6
	16	7 49·3	10 59·4			11 54·5	18 16·2
		17 39·7	20 55·0				
	17	3 30·1	6 50·6				
		13 20·5	16 46·2				
	18	9 1·3	2 41·7	Feb.	1	7 35·4	4 11·8

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		I.	II.			I.	II.
		(877°·90)	(870°·27)			(877°·90)	(870°·27)
1896.		h m	h m	1896.		h m	h m
Feb.	1	17 25·8	14 7·4	Feb.	19	8 34·9	8 59·0
		20 6	Sat. III. Sh.			18 25·4	18 54·7
	2	3 16·2	9 58·6		20	4 15·8	4 50·3
		13 6·6	19 54·2			14 6·3	14 46·0
	3	8 47·5	5 49·8		21	9 47·2	10 37·3
		18 37·9	15 45·4			19 37·7	20 32·9
	4	4 28·3	11 36·6		22	5 28·2	6 28·6
		14 18·8	21 32·2			15 18·6	16 24·2
	5	9 59·6	7 27·8		23	1 9·1	2 19·9
		19 50·1	17 23·4			8 4	Sat. III. Sh.
	6	5 40·5	3 19·0			10 56·9	12 15·5
		15 30·9	13 14·6		24	6 40·5	8 6·8
	7	11 11·8	9 5·9			16 31·0	18 2·5
		21 2·2	19 1·5		25	2 21·5	3 58·1
	8	6 52·7	4 57·1			12 12·0	13 53·8
		16 43·1	14 52·7		26	7 52·9	9 45·1
	9	2 33·6	10 43·9			17 43·4	19 40·8
		12 24·0	20 39·6		27	3 33·9	5 36·4
	10	8 4·9	6 35·2			13 24·4	15 32·1
		17 55·3	16 30·8		28	9 5·4	1 27·8
	11	3 45·8	2 26·4			18 55·9	11 23·4
		13 36·2	12 22·0		29	4 46·3	7 14·8
	12	9 17·1	8 13·3			14 36·8	17 10·4
		19 7·6	18 8·9	Mar.	1	10 17·8	3 6·1
	13	4 58·0	4 4·5			12 3	Sat. III. Sh.
		14 48·5	14 0·2			20 8·3	13 1·8
	14	10 29·4	9 51·4		2	5 58·8	8 53·1
		18 20	Sat. IV. Sh.			12 22	Sat. IV. Sh.
		20 10·8	19 47·1			15 49·3	18 48·8
	15	6 10·3	5 42·7		3	1 39·8	4 44·5
		16 0·7	15 38·3			11 30·3	14 40·1
	16	1 51·2	1 33·9		4	7 11·4	10 31·5
		11 41·6	11 29·6			17 1·8	20 27·2
		21 32·1	21 25·2		5	2 52·3	6 22·9
	17	7 22·6	7 20·8			12 42·9	16 18·6
		17 13·0	17 16·5		6	8 23·9	2 14·2
	18	3 3·5	3 12·1			18 14·4	12 9·9
		12 53·9	13 7·7		7	4 4·9	8 1·3
							S S 2

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Mr. Marth, Ephemeris for

LV. 9.

		I.	II.			I.	II.
		(877°·90)	(870°·27)			(877°·90)	(870°·27)
		h m	h m			h m	h m
1896.	Mar. 7	13 55·4	17 57·0	1896.	Mar. 25	14 58·9	12 52·6
	8	9 36·4	3 52·7		26	10 40·0	8 44·1
		16 2	Sat. III. Sh.		20	30·6	18 39·8
		19 26·9	13 48·4		27	6 21·2	4 35·6
	9	5 17·4	9 39·8			16 11·7	14 31·3
		15 8·0	19 35·4		28	2 2·3	10 22·8
	10	10 49·0	5 31·1			11 52·8	20 18·5
		20 39·5	15 26·8		29	7 34·0	6 14·3
	11	6 30·0	1 22·5			17 24·5	16 10·0
		16 20·5	11 18·2		30	3 15·1	2 5·7
	12	2 11·1	7 9·6			13 5·7	12 1·5
		12 1·6	17 5·3		31	8 46·8	7 53·0
	13	7 42·6	3 1·0			18 37·4	17 48·7
		17 33·2	12 56·7	Apr. 1	4 27·9		3 44·5
	14	3 23·7	8 48·1			14 18·5	13 40·2
		13 14·2	18 43·8		2	9 59·7	9 31·7
	15	8 55·3	4 39·6			19 50·2	19 27·5
		18 45·8	14 35·3		3	5 40·8	5 23·2
		20 2	Sat. III. Sh.			15 31·9	15 19·0
	16	4 36·4	10 26·7		4	1 22·0	1 14·8
		14 26·9	20 22·4			11 12·5	11 10·5
	17	10 8·0	6 18·1		5	6 53·7	7 2·0
		19 58·5	16 13·8			16 44·3	16 57·8
	18	5 49·0	2 9·5		6	2 34·9	2 53·5
		15 39·6	12 5·3			8 1	Sat. III. Sh.
	19	6 24	Sat. IV. Sh.			12 25·5	12 49·3
		11 20·7	7 56·7		7	8 6·6	8 40·8
		21 11·2	17 52·4			17 57·2	18 36·6
	20	7 1·7	3 48·1		8	3 47·8	4 32·4
		16 52·3	13 43·9			13 38·4	14 28·1
	21	2 42·8	9 35·3		9	9 19·6	10 19·7
		12 33·4	19 31·0		10	5 0·7	6 11·2
	22	8 14·5	5 26·7			14 51·3	16 7·0
		18 5·0	15 22·5		11	10 32·5	11 58·5
	23	3 55·6	1 18·2		12	6 13·7	7 50·1
		13 46·1	11 13·9			16 4·3	17 45·8
	24	9 27·3	7 5·4		13	1 54·9	3 41·6
		19 17·8	17 1·1			12 1	Sat. III. Sh.
	25	5 8·4	2 56·9			11 45·5	13 37·4

Sup. 1895.

Physical Observations of Jupiter.

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I. (877°·90)			II. (870°·27)			I. (877°·90)			II. (870°·27)		
1896.	h	m	h	m	1896.	h	m	h	m		
Apr. 14	7	26·7	9	28·9	May 15	11	33·9	10	14·0		
15	3	7·9	5	20·5	16	7	15·2	16	1·4		
	12	58·5	15	16·3	17	12	47·1	11	53·1		
16	8	39·7	11	7·8	18	8	28·4	7	44·7		
17	4	20·9	6	59·4	19	7	59	Sat. III. Sh.			
	14	11·5	16	55·2		13	0·4	13	32·2		
18	9	52·7	12	46·7	20	9	41·7	9	23·8		
19	5	33·9	8	38·3	21	5	22·9	5	15·5		
	15	24·5	18	34·1		15	13·6	15	11·3		
20	11	5·8	14	25·7	22	10	54·9	11	2·9		
	16	0	Sat. III. Sh.			15	53	24's centre 8''·1 south of * 9 ^m ·0 B.D. 20°·2104 Occultation.			
21	6	47·0	10	17·2		20	45·5	20	58·8		
22	2	28·2	6	8·8	23	0	4	24's centre 41''·3 south of * 9 ^m ·2 B.D. 20°·2106.			
	12	18·8	16	4·6		6	36·2	6	54·6		
23	8	0·0	11	56·2		16	26·8	16	50·4		
24	3	41·3	7	47·8	24	12	8·1	12	42·1		
	13	31·9	17	43·6	25	6	32	Sat. IV. Sh.			
25	9	13·1	13	35·2		7	49·4	8	33·7		
26	4	54·3	9	26·7	26	11	58	Sat. III. Sh.			
27	10	26·2	15	14·1		13	21·4	14	21·2		
28	6	7·4	11	5·7	27	9	2·7	10	12·9		
29	11	39·3	6	57·3	28	14	34·6	16	0·4		
30	7	20·5	12	44·7	29	10	15·9	11	52·0		
May 1	12	52·4	8	36·3	30	5	57·2	7	43·7		
2	8	33·6	14	23·8	31	11	29·1	13	31·2		
3	14	5·5	10	15·4	June 1	7	10·4	9	22·8		
4	9	46·8	6	7·0	2	12	42·4	15	10·3		
5	5	28·0	11	54·4		15	57	Sat. III. Sh.			
6	10	59·9	7	46·0	3	8	23·7	11	2·0		
7	6	41·2	13	33·5	4	13	55·7	6	53·7		
8	12	13·1	9	25·1	5	9	37·0	12	41·2		
	12	31	Sat. IV. Sh.		6	5	18·3	8	32·8		
9	7	54·4	5	16·7	7	10	50·3	14	20·3		
	17	45·0	15	12·5	8	6	31·6	10	12·0		
10	13	26·3	11	4·2	9	12	3·6	15	59·5		
11	9	7·5	6	55·8	10	7	44·9	11	51·2		
12	14	39·5	12	43·2							
13	10	20·7	8	34·9							
	6	2·0	14	22·3							

west may watch the conjunction of the star with Sat. II., which occurs, geocentrically, at 16^h 52^m Gr., the satellite passing 7''·0 south of the star. The conjunction of the star with Sat. I. occurs earlier in the night, at 11^h 40^m Gr., the satellite passing 11''·0 south, too late for European, too early for American, observers.

The measurements of the *fifth* satellite, which Prof. Barnard has secured during its third apparition on eight nights (October 8, 29, November 4, 11, 12, 18, 19, December 3, 1894) and which he has kindly communicated before publication, leave the correction required by the ephemeris in No. 3,253 of the *Astron. Nachrichten* rather undecided, so that for the present ephemeris I have made no change in the adopted daily rate of motion 722°·633, which corresponds to a period of 11^h 57^m 22^s·60. No other measurements made during last season have come to my knowledge.

Ephemeris of the Fifth Satellite of Jupiter, 1895-96.

Greenwich Noon.	P+90°.	α_s	b_s	$l_s-L.$	Greenwich Times of greatest Elongations.			
1895.					h	m	h	m
Oct. 21	106°·61	47°·00	+0°·55	185°·85	14	45	W.	20 44 E.
23	106°·68	47°·27	·54	191°·04	14	35		20 33
25	106°·75	47°·55	·53	196°·24	14	24		20 23
27	106°·81	47°·83	·53	201°·45	14	14		20 13
29	106°·87	48°·12	·52	206°·67	14	4		20 2
31	106°·93	48°·41	·51	211°·91	13	53	W.	19 52 E.
Nov. 2	106°·98	48°·70	+0°·51	217°·15	13	43		19 41
4	107°·03	49°·00	·50	222°·41	13	32		19 31
6	107°·07	49°·30	·49	227°·67	13	22		19 20
8	107°·11	49°·60	·49	232°·95	13	11		19 10
10	107°·15	49°·90	·48	238°·24	13	1	W.	18 59 E.
12	107°·18	50°·21	+0°·48	243°·55	18	49	E.	24 47 W.
14	107°·20	50°·52	·47	248°·86	18	38		24 37
16	107°·22	50°·83	·47	254°·19	18	28		24 26
18	107°·24	51°·14	·46	259°·52	18	17		24 16
20	107°·26	51°·46	·46	264°·87	18	6		24 5
22	107°·27	51°·77	+0°·45	270°·23	17	56	E.	23 54 W.
24	107°·27	52°·08	·45	275°·61	17	45		23 43
26	107°·27	52°·39	·45	280°·99	17	34		23 33
28	107°·27	52°·70	·44	286°·38	17	23		23 22
30	107°·26	53°·01	·44	291°·79	17	13		23 11
Dec. 2	107°·25	53°·31	+0°·44	297°·21	17	2	E.	23 0 W.
4	107°·23	53°·61	·44	302°·63	16	51		22 50
6	107°·21	53°·91	·43	308°·07	16	40		22 39
8	107°·19	54°·20	·43	313°·52	16	29		22 28
10	107°·16	54°·49	·43	318°·98	16	18		22 17